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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/847,975	05/02/2001	Jason Seung-Min Kim	2100653-991360	7300

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PILLSBURY WINTHROP LLP
2475 HANOVER STREET
PALO ALTO, CA 94304-1114

EXAMINER

AMIN, NIRAV S

ART UNIT	PAPER NUMBER
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2115

DATE MAILED: 12/30/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/847,975

Applicant(s)

KIM, JASON SEUNG-MIN

Examiner

Nirav S Amin

Art Unit

2115

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 12 October 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-55 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-55 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 02 May 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claims 1-55 are pending in the application.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claim 52 recites the limitation "said device" in lines 4 and 5. There is insufficient antecedent basis for this limitation in the claim. It is assumed "device" was meant to be "devices".

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1, 19 and 52 are rejected under 35 U.S.C. 102(b) as being anticipated by Hawkins et al. (USPN: 5,586,308) herein after referred to as Hawkins.

As per claims 1 and 19, Hawkins teaches

a flexible clock generator circuit (26) including at least one fixed rate clock signal oscillator, said generator circuit for generating at least one or more clock signals, wherein the frequency of each of said signals can be in a range from less than to greater than the frequency of said fixed rate clock signal [Column 4, line 66- Column 5, line 2, Column 5, lines 20-27]; and

a clock selector circuit (24) responsive to a rate of usage of each of said plurality of devices that directs a particular frequency of an output signal to be supplied to each of said plurality of devices to maintain operation of each of said plurality of devices and minimize the total power being consumed by the computer system [Column 4, lines 51-66, Column 5, lines 10-15].

As per claim 52, Hawkins teaches
sensing a current operational usage of each said device [Column 5, lines 10-15];
adjusting a frequency of a clock signal from a clock generator to each said device, said frequency in proportion to said usage [Column 5, lines 10-15], wherein said clock signal is supplied by a flexible clock generator including at least one oscillator [Column 5, lines 1-2], and wherein said generator can output at least one signal having a frequency adjustable from less than to greater than a frequency of said at least one oscillator [Column 5, lines 20-27].

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 37-51 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mensch Jr. (USPN: 5,737,613) in view of Hawkins.

As per claim 37, Mensch Jr. teaches

a first oscillator that generates a first clock signal [Figure 1H (359); Column 12, lines 57-64];

a second clock oscillator that generates a second clock signal [Figure 1H (351); Column 12, lines 38-43]; and

a programmable clock circuit that generates a third clock signal based on the second clock signal [Figure 1H (365); Column 12, lines 44-49]. However, Mensch Jr. does not explicitly teach wherein the frequency of said third clock signal can be in a range from less than to greater than a frequency of said second clock signal.

Hawkins teaches

a clock circuit that generates a third clock signal based on the second clock signal wherein a frequency of said third clock signal can be in a range from less than to greater than a frequency of said second clock signal [Column 4, lines 20-27]; and

a clock select circuit (26) that selects one of the first, second and third clock signals that is supplied to a portion of the computer system to provide that portion of the computer system with a predetermined clock signal [Column 4, lines 55-66].

At the time of the invention, it would have been obvious to one skilled in the art to combine the teachings of Mensch Jr. and Hawkins to provide two separate clock oscillators outputting two separate clock signals wherein a third signal is derived from the second oscillator clock signal such that the frequency of the third clock signal can be in a range from less than to greater than a frequency of the second oscillator clock signal.

Claims 4-18 and 22-36 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hawkins in view of Mensch Jr.

As per claims 4 and 22, Hawkins does not explicitly teach a clock generator circuit which includes a first oscillator that generates a first clock signal, a second clock oscillator that generates a second clock signal, and a programmable clock circuit that generates a third clock signal based on the second clock signal.

Mensch Jr. teaches
a first oscillator that generates a first clock signal [Figure 1H (359); Column 12, lines 57-64];

a second oscillator that generates a second clock signal [Figure 1H (351); Column 12, lines 38-43]; and

a programmable clock circuit that generates a third clock signal based on the second clock signal [Figure 1H (365); Column 12, lines 44-49].

At the time of the invention, it would have been obvious to one skilled in the art to combine the teachings of Hawkins and Mensch Jr. to provide two separate clock oscillators outputting two clock signals wherein a third clock signal is derived from the faster oscillator and to select one of the three clock signals to be supplied to a portion of a computer system depending on the appropriate clock speed required because the three clock signals signify a high speed clock signal, a clock signal with a speed in between the high and low speed (the third clock signal) and a low speed clock signal. It would be advantageous to have each of these signals readily available to be supplied to a portion of the computer system based on the need of that particular portion.

As per claims 16 and 34, Hawkins teaches the clock select circuit includes means for dynamically changing the clock frequency applied to each device of the computer system based on the task being performed by the computer system [Column 5, lines 10-15].

Claims 2-3, 20-21 and 53-55 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hawkins in view of Mustafa et al (USPN: 6,678,831) herein after referred to as Mustafa.

As per claims 2, 20 and 53, Hawkins does not explicitly teach a static power management system wherein power is withdrawn from components that are not currently active to reduce the power consumption of the computer system.

Mustafa teaches power being withdrawn from components that are not currently active to reduce the power consumption of the computer system [Column 1, lines 10-19]. It would have been obvious to one skilled in the art to combine the teachings of Hawkins and Mustafa to incorporate a static power management system wherein power is removed from inactive components and reapplied when it becomes active to further reduce the power consumed.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP

§ 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Nirav S Amin whose telephone number is (571) 272-3821. The examiner can normally be reached on 8:00-4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thomas Lee can be reached on (571) 272-3667. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Art Unit: 2115

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

NA



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